Test Vendor ID:	IWO 3009
Qwest Internal Tracking ID:	TI 477
Observation/IWO Title:	Status File Generated / Qwest IA is Generating Duplicate
Test Type/Domain:	Capacity
Date Qwest Received:	08/15/01
Initial Response Date:	08/15/01

Test Incident Summary:

While reviewing the data in the Status File generated as a result of the August 10th System Capacity Test, the Test Administrator observed that data was missing from the file. HP researched the problem and reported that The Qwest IA is generating duplicate file names. It appears that at some point, the IA started reusing the file names causing the new files to overwrite previously generated files.

Qwest Response Summary:

Root Cause

This IWO states that, in the August 10th System Capacity Test, Qwest's IA generated duplicate file names causing new files to overwrite previously generated files. That is not factually correct. Files were overwritten; however, it was not due to Qwest's IA. Rather, it was due to the design of the UNIX operating system on which Qwest's IA is running on the pseudo-CLEC side of the interface. The following points are important to note:

- The version of UNIX that is used by the pseudo-CLEC uses a C library function that opens only 17,576 unique files in a particular directory from a particular process;
- The result of this limitation is that inbound files that already existed on the server in the specified directory were overwritten;
- This limitation is not the fault of Qwest's IA or of the pseudo-CLEC; it simply is how that version of UNIX is designed; and
- CLECs, RBOCs and indeed any other company in any other industry would encounter this limitation in their applications (whether it was an IA or other application that relied on naming files) if it used a version of UNIX that had this limitation.

Solutions:

Qwest believes a company that encounters this limitation has the following options:

- Create a program to rename the inbound file to a guaranteed unique name according to its own naming convention;
- Apply a patch to the operating system;
- Process the inbound file completely upon arrival (grab all of the information needed & log that information to a database, thereby not relying on transactions with filenames); or
- Another solution.[1]

---

[1] Qwest has not attempted to identify all possible solutions.

Access to Information

In offering these solutions, Qwest relied upon its own technical knowledge. Likewise, other companies must rely on their own technical knowledge to solve problems and come up with technically feasible solutions. The limitation addressed in this IWO is not the sort of information that Qwest would include in its technical documentation or systematically address in its face-to-face or telephonic meetings with CLECs. Qwest does not advise other companies on how to design their own internal systems.

Limitation Not Likely to Be Encountered in Real Life

It is highly unlikely that a real CLEC would wish to save every inbound transaction. Real CLECs process their EDI transactions into their backend systems where real work is performed. Their backend systems retain the preorder/order data and would not rely on creating a file for each transaction, amass them in a database and later rely solely on accessing them to get at their preorder/order data.

Even if a CLEC did do this, no CLEC would have to handle the level of volumes generated by the August 10th Capacity Test. This test required the pseudo-CLEC to generate volumes for the entire CLEC community and for a year in advance. It is highly unlikely that the 17,576 limitation would be encountered.

August 10th Capacity Test Is Valid

The raw data from the August 10th Capacity Test was not overwritten; therefore, valid performance measurement results can be calculated to determine whether Qwest met the applicable benchmarks. This is because transactions are sent to the pseudo-CLEC in X12 format some of which were overwritten; however, the X12 transactions were translated into FCIF format and stored. The pseudo-CLEC can produce its report files using the FCIF transactions. Please note that the pseudo-CLEC could also convert the FCIF transactions back into X12 format, although Qwest does not believe that effort adds any value.

This IWO Is Not A Level 3

This IWO is not properly classified as a Level 3 incident. Appendix I of the TSD defines Level 3 as follows:

> "Level 3" represents an incident that negatively affects CGEY's recommendation regarding whether Qwest has passed part or all of the test.

As discussed above, this IWO relates to an issue regarding the UNIX operating system, not the Qwest IA installed in HP's systems, and therefore has no bearing on CGE&Y's evaluation of the capacity test success criteria. However, even if the issue were attributable to the Qwest IA HP is using, evaluation of that IA is not within the scope of the capacity test.

The capacity test is intended to evaluate the systems Qwest uses to process CLEC transactions. The IA HP is using to generate the transactions to send to Qwest -- whether it is the Qwest IA, Templar, or some other product -- is not part of the systems Qwest uses to process CLEC transactions. Indeed, the CLECs *insisted* that HP's use of the Qwest IA could have no impact on the capacity test results. During TAG discussions regarding the possibility of allowing HP to use the Qwest IA to generate the capacity test volumes, the CLECs voiced a concern that HP's use of the Qwest IA may somehow provide an advantage to Qwest in the capacity test. HP assured the TAG that the measurements taken to evaluate the capacity test success criteria would not be tainted by the IA on the HP side. This is consistent with the clear specifications in the MTP and TSD that the capacity test is intended to evaluate Qwest's systems, and the results of that test should not be dependent on the CLEC-side hardware or software.

Because evaluation of the IA HP used to generate the capacity test volumes is not properly within the scope of the capacity test, it would be inappropriate for an out-of-scope issue to affect CGE&Y's recommendation -- one way or the other -- regarding whether Qwest has passed the capacity test. Therefore, this issue cannot constitute a Level 3 IWO.

Attachment(s): None